

What is claimed is:

1. A document relationship inspection apparatus which inspects the relationship between constituent elements of a first document and constituent elements of a second document, comprising:

a logical structure parsing section which parses a logical structure of a sentence block including at least one sentence in the constituent elements of the first document and which parses a logical structure of a sentence block including at least one sentence in the constituent elements of the second document; and

a relationship detection section which detects the relationship between the sentence block of the first document and the sentence block of the second document on the basis of a parsing result from the logical structure parsing section.

2. A document relationship inspection apparatus according to claim 1, wherein

the relationship detection section

when sentence blocks of the same document have a hierarchical structure, detects the relationship related to the sentence block at an upper hierarchy and then detects the relationship of a sentence block at a lower hierarchy.

3. A document relationship inspection apparatus according to claim 1, wherein

the relationship detection section

comprises a first degree-of-similarity calculation section which calculates a predetermined degree of similarity between a sentence block related to the first document and a sentence block related to the

second document,

when the sentence blocks of the same document have a hierarchical structure, the relationship of a block having a higher degree of similarity in sentence blocks at the same hierarchy is preferentially detected, and the first degree-of-similarity detection section is controlled to increase the degree of similarity of a sentence block which is near the sentence block the relationship of which is detected in the document.

4. A translation process apparatus which uses a parallel-translation dictionary in which a parallel translation between original sentences and translated sentences in a first document is registered to perform a translation process of an original of a second document serving as a revised-edition document obtained by changing at least a part of the first document, comprising:

a document relationship inspection apparatus according to any one of claims 1 to 3; and

a block translation process section which executes a translation process using the parallel-translation dictionary to at least a sentence block the relationship of which is detected by the document relationship inspection apparatus in sentence blocks included in an original related to the second document.

5. A translation process apparatus according to claim 4, comprising

a first difference information display section which, when a translation result of the sentence block the relationship of which is detected by the document relationship inspection apparatus is displayed, first difference information representing a difference between

the originals of the first document and the second document.

6. A translation process apparatus according to claim 4, comprising

a second difference information display section which, when sentence blocks of the same document has a hierarchical structure, displays second difference information representing a difference between a sentence block of an upper hierarchy to which the sentence block the relationship of which is detected by the document relationship inspection apparatus belongs and the original of the first document.

7. A translation process apparatus according to claim 4, comprising:

a second degree-of-similarity calculation section which calculates a predetermined degree of similarity between the sentence block of the original related to the first document and the sentence block of the original related to the second document; and

a corresponding candidate process section which stores, as corresponding candidate blocks, sentence blocks the degrees of similarity of which are detected by the second degree-of-similarity and which are not less than a predetermined threshold value to display the sentence blocks depending on dialogue with a user.

8. A document relationship inspection method which inspects the relationship between constituent elements of a first document and constituent elements of a second document, comprising the steps of:

parsing a logical structure of a sentence block including at least one sentence in the constituent elements of the first document and parsing a logical structure of a sentence block including at least one sentence in the constituent elements of the second document; and

detecting the relationship between the sentence block of the first document and the sentence block of the second document on the basis of a parsing result from the logical structure parsing section.

9. A document relationship inspection method according to claim 8, wherein

the relationship detection section

when sentence blocks of the same document have a hierarchical structure, detects the relationship related to the sentence block at an upper hierarchy and then detects the relationship of a sentence block at a lower hierarchy.

10. A document relationship inspection method according to claim 8, wherein

in the relationship detection section,

a first degree-of-similarity calculation section calculates a predetermined degree of similarity between a sentence block related to the first document and a sentence block related to the second document,

when the sentence blocks of the same document have a hierarchical structure, the relationship of a block having a higher degree of similarity in sentence blocks at the same hierarchy is preferentially detected, and the first degree-of-similarity detection section is controlled to increase the degree of similarity of a sentence block which is near the sentence block the relationship of which is detected in the document.

11. A translation process method which uses a parallel-translation dictionary in which a parallel translation between original sentences and translated sentences in a first document is

registered to perform a translation process of an original of a second document serving as a revised-edition document obtained by changing at least a part of the first document, comprising the steps of:

detecting the relationship between a sentence block included in an original related to the second document and a sentence block of an original related to the first document by a document relationship inspection method according to any one of claims 8 to 10; and

causing a block translation process section to execute a translation process using the parallel-translation dictionary to at least a sentence block the relationship of which is detected by the document relationship inspection method in sentence blocks included in the original related to the second document.

12. A translation process method according to claim 11, comprising

a first difference information display section which, when a translation result of the sentence block the relationship of which is detected by the document relationship inspection method is displayed, first difference information representing a difference between the originals of the first document and the second document.

13. A translation process method according to claim 11, comprising

a second difference information display section which, when sentence blocks of the same document have a hierarchical structure, displays second difference information representing a difference between a sentence block of an upper hierarchy to which the sentence block the relationship of which is detected by the document relationship inspection method belongs and the original of the first document.

14. A translation process method according to claim 11, wherein a second degree-of-similarity calculation section calculates a predetermined degree of similarity between the sentence block of the original related to the first document and the sentence block of the original related to the second document, and

sentence blocks the degrees of similarity of which are detected by the second degree-of-similarity and which are not less than a predetermined threshold value are stored as corresponding candidate blocks to display the sentence blocks depending on dialogue with a user.

15. A document relationship inspection program which inspects the relationship between constituent elements of a first document and constituent elements of a second document, causing a computer to realize

a logical structure parsing function which parses a logical structure of a sentence block including at least one sentence in the constituent elements of the first document and which parses a logical structure of a sentence block including at least one sentence in the constituent elements of the second document; and

a relationship detection function which detects the relationship between the sentence block of the first document and the sentence block of the second document on the basis of a parsing result from the logical structure parsing section.